



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/535,623

12/02/2005

Seijiro Tomita

050318

7511

23850 7590 07/24/2007  
KRATZ, QUINTOS & HANSON, LLP  
1420 K Street, N.W.  
Suite 400  
WASHINGTON, DC 20005

EXAMINER

CHOW, YUK

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

07/24/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/535,623	<b>Applicant(s)</b> TOMITA, SEIJIRO	
	<b>Examiner</b> Yuk C. Chow	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6 and 7 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/20/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/20/2005</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Drawings*

1. **Figure 4** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the **limitations in claim 2, "arc, cross, radial, circular, polygonal or spiral configuration"** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 recites the limitations "**arc, cross, radial, circular, polygonal and spiral configurations**" in line 4. There are insufficient antecedent basis for these limitations in the claim.
4. Claim 6 recites the limitation "**counting number of observers and their corresponding positions**" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al (PGPUB US 2003/0058210 A1).

As to claim 1, Street discloses a light source device for display having an image display means, wherein the image display means forms an image using transmitted light, the light source device comprising: a LED array (Fig. 1(104)) having a plurality of white LEDs or RGB LEDs (Fig. 3(304)) arranged in array, and the white LEDs or RGB LEDs being arranged so as to synchronize (Fig. 5 ( $V_{\text{sync}}$ ) also see [0064]) with an image signal to have a turn-on and turn-off controlled at high speed [0053].

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (PGPUB US 2003/0058210 A1) in view of Suzuki et al (US Patent 6,757,422).

As to claim 2, Yamazaki discloses a light source device for display according to claim 1 above, and the LEDs are arranged in a linear configuration (Fig. 1(103)).

However Yamazaki does not teach a convex lens or a Fresnel lens is arranged between the light source according to the claim 1 and a liquid crystal display.

Suzuki discloses a viewpoint position detection for stereoscopic image display system, which uses lenticular lens (Fig. 15(220, 230)) in between light source (Fig. 15(250)) and LCD (Fig. 15(210)).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to use the lenticular lens of Suzuki with display device of Yamazaki, because lenticular lens are used to diffuse the light so that viewing angle could be improved.

As to claim 3, Suzuki discloses a viewpoint position detection for stereoscopic image display system, which teaches light source are turned on and scanned at high speed in vertical and horizontal directions (Fig. 18 (Hm, Vm) also see Col. 22 line 39 – Col. 23 line 36).

As to claim 4, Suzuki discloses a light source device for display according to claim 2, wherein the display has a position identifying means (Fig. 14(120)) which measures a position of an observer relative to the display and outputs a corresponding position signal, and a means for controlling (Fig. 14(320)) LED turn-on performs a turn-on control on the white LEDs or RGB LEDs based on the position information so as to keep an image viewable by the observer.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki in view of Suzuki as applied to claim 2 above, and further in view of Street (US Patent 5,936,774).

As to claim 6, Yamazaki and Suzuki disclose a light source device for display according to claim 2 above.

However, Yamazaki and Suzuki does not teach the position identifying means, which counts the number of observers, measures positions of the observers relative to the display and outputs corresponding position signals.

Street discloses an autostereoscopic display, which allows for multiple viewers (Fig. 5B(52) and Col. 11 lines 11-36).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the capability of having multiple viewers of Street into light source device of Yamazaki, this provide additional mode in which the LCD screen operates as a conventional display. This is an advantage according to Street (see Col. 2 lines 16-19).

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (PGPUB US 2003/0058210 A1).

As to claim 7, Yamazaki discloses a light source device for display according to claim 1 in embodiment 1.

However, embodiment 1 of Yamazaki does not teach wherein the display is used on displays of television sets, game machines, personal computers, cell phones or mobile terminals.

Embodiment 10 of Yamazaki teaches a wide range of application: television sets (Fig. 24(C)), game machines (Fig. 24(B)), personal computers (Fig. 24(A)), cell phones (Fig. 21(A)) or mobile terminals (Fig. 21(C)).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the display device of Yamazaki into multimedia device, since it is capable of minimizing the flicker and the having a high resolution.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuk C. Chow whose telephone number is 571 270-1544. The examiner can normally be reached on 8-6 M-TH E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Application/Control Number: 10/535,623  
Art Unit: 2629

Page 8

YC  
07/19/2007

  
AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER